

## ABSTRACT OF THE DISCLOSURE

An ion mobility spectrometer with a GC column and an internal circulation system is provided which can be used in trace gas analysis. Due to the special design of the gas circulation, the parameters: carrier gas velocity in the GC column, the flow rate of the gas to be analyzed and the flow rate of the drift gas can be varied extensively independently and without 5 reaction. Additional pumps and gas splitters are arranged in the circulation system for this purpose.